

SHORT COMMUNICATION

New record of the bignose shark, *Carcharhinus altimus* (Springer, 1950) (Carcharhiniformes: Carcharhinidae), in Turkish waters

Cemal Turan¹, Mahmut İğde¹, Aysegul Ergenler¹, Deniz Ayas^{2*}

¹ Faculty of Marine Sciences and Technology, Iskenderun Technical University, Iskenderun, Hatay, TURKEY

² Faculty of Fisheries, Mersin University, Yenişehir Campus, Mersin, TURKEY

ORCID IDs: C.T. 0000-0001-9584-0261; M.İ. 0000-0003-4288-8995; A.E. 0000-0001-9186-3909, D.A. 0000-0001-6762-6284

***Corresponding author:** ayasdeniz@gmail.com

Abstract

A young male bignose shark, *Carcharhinus altimus*, was caught with a trammel net at a depth of 20 m from the northeastern Mediterranean Sea (Iskenderun Bay- Samandağ coast). The total length of the individual was 68.0 cm and the weight was 3100 g. This is a new record of *C. altimus* in Turkish coasts.

Keywords: *Carcharhinus altimus*, bignose shark, record, Iskenderun Bay, northeastern Mediterranean

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Carcharhinus altimus is a circumglobal species. However, it has no regular distribution in the Mediterranean (Compagno and Niem 1998) and does not have a record in the Black Sea. This species is found in tropical, subtropical, and temperate waters of all oceans and spottily dispersed in the Mediterranean Sea. It is one of the migratory species coming from the Strait of Gibraltar to the Mediterranean Sea (Serena 2005).

C. altimus was recorded for the first time on the Moroccan coast, Alboran Sea (Moreno and Hoyos 1983), followed by one from the waters of Israel (Golani 1996) and another one in Algerian waters (Hemida and Labidi 2001). *C. altimus* is considered as established in the Mediterranean based on at least three distinct published records well spread out in time and space (Bradai *et al.* 2012). This species was also recorded from Iskenderun Bay (Başusta and Erdem 2000;

Yaglioglu *et al.* 2015) and from Mersin Bay (Ayas *et al.* 2020) in Turkish waters.

In this study, a male specimen of the bignose shark *C. altimus* was caught by a trammel net at a depth of 20 m on 13 July 2019 from the Samandağ coast (36°02'56.0"N 35°56'53.6"E), Iskenderun Bay, northeastern Mediterranean coast of Turkey (Figure 1). The specimen was 680 mm in total length and 3100 g in total weight. The detailed morphometric measurement was carried out to the nearest 0.1 mm using a caliper and given in Table 1. The specimen identified as *C. altimus* with the diagnostic characteristics was described by Grace (2001) and Serena (2005). This specimen was preserved in a freezer and deposited in Marine Science and Technology Faculty, Iskenderun Technical University (Figure 2).

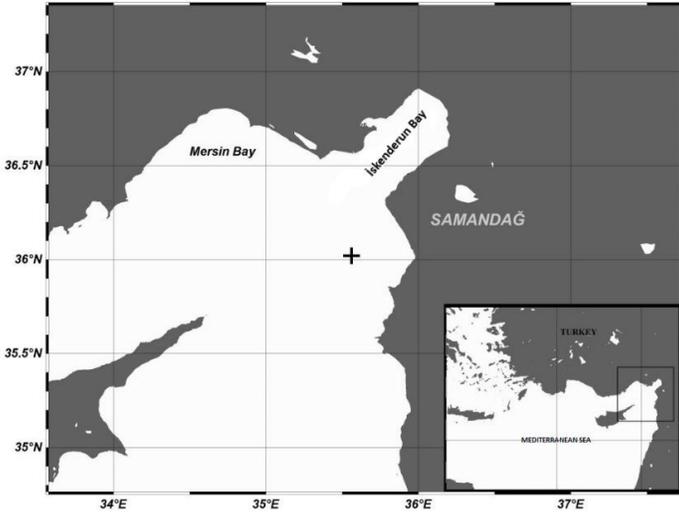


Figure 1. Map of capture site of *C. altimus*

The identification of *C. altimus* is mainly based on the following criteria (Serena 2005). The snout is long, and the distance between the nostrils is equal to or greater than mouth width (Figure 2). The 1st dorsal fin begins in the middle of the pectoral fin (Figure 3), and it has long triangular upper teeth (Figure 4). *C. altimus* also differs from other species of this genus by two extra morphological features: a snout that is either moderately or sharply rounded (Figure 2) and the first dorsal fin has an angular or slightly rounded apex (Figure 2) (Grace 2001). The distinguishing characteristics of *C. altimus* reported by Compagno (1984) are consistent with ours. The distance between the nostrils and the mouth is smaller than the mouth width (Table 1). The second dorsal fin's height is 2.94 % of its total length (Figure 3). Upper

anterolateral teeth are more obvious than the central ones (Figure 4), and there are two rows of 15 anteroposterior teeth in each row per jaw half (Figure 4).

Table 1. Morphometric measurements of *C. altimus* caught in Iskenderun Bay (Samandağ coast)

Features (in mm except weight)			
Weight (g)	3100	First to second dorsal	275
Total length	680	Between dorsal bases	140.9
Standard length	590	Pelvic to caudal space	150
Head length	111	Second dorsal to upper caudal	41.4
Eye diameter	8.4	Upper caudal	172.5
Interorbital distance	64.2	Lower caudal	59.9
Pre-spiracle length	18.9	Mouth width	56.0
Distance between spiracles	7.9	Body depth	86.5
Snout to mouth	22.9	Dorsal fin base length	52.1
Snout to first gill-slit	90.4	Caudal peduncle depth	12.9
Snout to disc	11.0	Pectoral fin length	105
Snout to first dorsal	175	The distance between D1 and D2 (DB D1-D2)	230
Snout to pelvic	112.5	The distance between the nostrils and the mouth	21
Snout to spiracle	119.5	Second dorsal fin height	20



Figure 2. *Carcharhinus altimus* (680 mm TL)



Figure 3. The dorsal view of the specimen



Figure 4. The upper and lower teeth of the specimen

The identification of *C. altimus* is often confused with other sharks; that is why, a more extensive distribution range can be expected in the Mediterranean Sea (Serena 2005). *C. altimus* is classified as “Data Deficient” in the Mediterranean Sea by the International Union for Conservation of Nature (Mancini *et al.* 2015, Dulvy *et al.* 2016). Sharks are the largest predators in the marine food chain, and in general, they maintain the balance and control of the biological system (Cortés 1999). Although sharks are considered to be economically low worldwide, they are extensively hunted by industrial fishing. There are no robust data on the amount and composition of the bycatch. Distributional data of large sharks have been collected from the western and central parts of the Mediterranean basin (Sperone *et al.* 2012; Mancusi *et al.* 2014). Data on these species from the eastern part of the Mediterranean, however, are limited (Kabasakal *et al.* 2017).

Carcharhinidae is the most critical shark family for fishing in tropical regions. Its many species are being caught for commercial and sport fishing. These species are not only consumed as human food but also fat and vitamin A are produced from their livers. Besides, the fins of these species are used for oriental sharkfin soup. Compared to teleost, sharks reach sexual maturity at later ages, produce few youths, and have slow growth rate, making them vulnerable to overfishing. Due to the life strategies they choose, any loss of genetic

diversity may increase their species' susceptibility to population extinction (Stevens *et al.* 2000). Besides, the increasing demand for shark products has led to the depletion of shark populations worldwide.

When designing effective long-term conservation strategies, several factors related to shark ecology should be considered. In order to monitor shark populations, it is essential to evaluate the stock structure and their biological properties.

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Türkiye kıyılarından iri burunlu camgöz köpekbalığının *Carcharhinus altimus* (Springer, 1950) (Carcharhiniformes: Carcharhinidae) yeni kaydı

Öz

Carcharhinus altimus'un bir erkek bireyi, Kuzeydoğu Akdeniz'den (İskenderun Körfezi-Samandağ Sahili) 20 m derinlikten bir uzatma ağı ile yakalandı. Bireyin toplam uzunluğu 68.0 cm ve ağırlık 3100 g'dı. Bu çalışma bu türün Türkiye kıyıları için yeni kayıdır.

Anahtar kelimeler: *Carcharhinus altimus*, İri burunlu camgöz köpekbalığı, kayıt, İskenderun Körfezi, kuzeydoğu Akdeniz

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